

**THE UNITED REPUBLIC OF TANZANIA
NATIONAL EXAMINATIONS COUNCIL
ADVANCED CERTIFICATE OF SECONDARY EDUCATION
EXAMINATION**

155/2

FOOD AND HUMAN NUTRITION 2

(For Both School and Private Candidates)

Time : 3 Hours

ANSWERS

Year : 2003

Instructions

1. This paper consists of sections **A** and **B**.
2. Answer all questions in section **A** and only **two (2)** question from section **B**.
3. Non-programmable calculators may be used.
4. Communication devices and any unauthorised materials are **not** allowed in the examination room.
5. Write your **Examination Number** on every page of your answer booklet(s).

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1. Define agriculture and give two main branches of agriculture.

Agriculture is the science and practice of cultivating crops and rearing animals for food, fiber, and other human needs.

One branch of agriculture is crop production, which involves the growing of food and cash crops.

Another branch of agriculture is animal husbandry, which deals with the breeding and management of livestock.

2. Mention four effects of soil erosion.

Soil erosion causes loss of fertile topsoil, reducing the productivity of land.

It leads to siltation of rivers, lakes, and dams, lowering their water storage capacity.

Erosion exposes subsoil, which is poor in nutrients and less suitable for crop growth.

It contributes to desertification and environmental degradation, resulting in loss of biodiversity.

3. State three functions of carbohydrates in the human body.

Carbohydrates provide the main source of energy required for body activities.

They act as a reserve energy store in the form of glycogen in the muscles and liver.

Carbohydrates are essential for the proper functioning of the brain and nervous system.

4. (a) Define rickets.

Rickets is a nutritional disorder in children caused by deficiency of vitamin D, calcium, or phosphate, leading to weak and deformed bones.

- (b) Mention two signs of rickets.

One sign of rickets is bow-shaped legs.

Another sign is delayed growth and bone pain.

5. Explain three benefits of irrigation farming.

Irrigation ensures constant food production even during dry seasons.

It increases crop yields and allows farmers to cultivate high-value crops such as vegetables and fruits.

Irrigation contributes to national economic growth by improving food security and generating income for farmers.

6. List four methods of controlling livestock diseases.

Vaccination helps prevent the spread of infectious diseases.

Quarantine involves isolating sick animals to stop disease outbreaks.

Proper housing and sanitation reduce risks of infections.

Use of veterinary drugs treats and controls livestock diseases effectively.

7. Explain three importance of organic manure.

Organic manure improves soil fertility by adding essential plant nutrients.

It enhances soil structure and increases water retention capacity.

Organic manure supports microbial activity, which contributes to long-term soil health.

8. (a) Define balanced diet.

A balanced diet is a meal that contains all the essential nutrients in the right amounts to maintain health and proper growth.

(b) Mention four components of a balanced diet.

Proteins are needed for body growth and repair of tissues.

Carbohydrates supply energy for daily activities.

Fats provide energy reserves and help with body insulation.

Vitamins and minerals regulate body processes and strengthen immunity.

9. State four importance of fisheries in Tanzania.

Fisheries provide an important source of protein and other nutrients to the population.

They create employment opportunities in fishing, processing, and fish marketing.

Fisheries contribute to foreign exchange earnings through exports.

They support rural development by improving the livelihoods of fishing communities.

10. Explain three roles of cooperatives in agricultural development.

Cooperatives enable farmers to access credit and agricultural inputs at affordable rates.

They help farmers to market their produce collectively, ensuring better prices.

Cooperatives promote training and education on modern farming methods and practices.